

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions and listings of all claims in the application:

Claims 1-39 (cancelled)

40. (New) A non-naturally occurring integrin protein comprising 4 or more amino acid substitutions as compared to the human integrin protein of SEQ ID NO.:1, said substitutions selected from the group of amino acid residues consisting of residues 139, 153, 156, 157, 160, 199, 215, 219, 223, 238, 239, 240, 259, 269, 271, 287, 299, and 308.

41. (New) The non-naturally occurring integrin protein according to claim 40 wherein said substitutions are selected from the group of substitutions consisting of I139V, M153A, F156L, F156W, V157I, V160I, V199I, I215L, I215V, V219I, F223L, V238F, V238I, V239L, I240L, A259L, I269L, V271F, I287V, V299A, V299I, and I308V

43. (New) The non-naturally occurring integrin protein according to claim 41 or 42, wherein said non-naturally occurring integrin is artificially biased to exist in the open conformation, and wherein said artificial bias is the result of noncontiguous alterations of said protein.

44. (New) The non-naturally occurring integrin protein according to claim 41 or 42, wherein said non-naturally occurring integrin is artificially biased to exist in the closed

conformation, and wherein said artificial bias is the result of noncontiguous alterations of said protein.

45. (New) The non-naturally occurring integrin protein according to claim 41 comprising amino acid substitutions F156L, V160I, V199I, I215L, V238F, V239L, I240L, A259L, I269L, V271F, I287V, V299A, and I308V and SEQ ID NO.: 3.

46. (New) The non-naturally occurring integrin protein according to claim 41 comprising amino acid substitutions F156W, V199I, I215L, V238F, V239L, I240L, A259L, I287V, and V299I and SEQ ID NO.: 4.

47. (New) The non-naturally occurring integrin protein according to claim 41 comprising amino acid substitutions I139V, M153A, V157I, V199I, V238I, V239L, I287V, and V299I and SEQ ID NO.: 5.

48. (New) The non-naturally occurring integrin protein according to claim 41 comprising amino acid substitutions I215V, V219I, F223L, and V238I and SEQ ID NO.: 6.

49. (New) A pharmaceutical composition comprising a non-naturally occurring integrin protein according to any one of the preceding claims and a pharmaceutical carrier.